MEDNIKOV, F.A.

Utilization and properties of colophony from fresh stump wood. Gidroliz. i lesokhim. prom. 9 no.8:18-19 '56.
(MLRA 10:2)

1. Leningradskaya lesotekhnicheskaya akademiya imeni S.M. Kirova.
(Gums and resins)

MEDNIKOV, F.A., kandidat tekhnicheskikh nauk.

Latvian turpentining method. Gidroliz. i lesokhim. prom. 10
no.3:32 '57. (MIRA 10:5)

1. Lesotekhnicheskaya akademiya im. S.M. Kirova.
(Tree tapping)

MEDNIKOV, F.A.

Extraction of resinous materials from pulp of mature and fresh resinous wood. Gidroliz. i lesokhim. prom. 11 no.2:17-18 '58.
(MIRA 11:3)

1. Leningradskaya lesotekhnicheskaya akademiya.
(Gums and resins)

Mednikov, F.; Ushakova, E.

Extraction of resin substances from the fibrous mass of unseasoned and seasoned tar-impregnated wood in the continuously-operating double-column screw apparatus (D-200). p. 165.

BIOLOGICHESKAIA NAUKA: SELSKOMU L LASNOMU . (Latvijas PSR Zinatnu akademija. Biologijas Zinatnu nodala) Riga, Latvia, No. 16, 1958. In Russian.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 8, August, 1959.
Uncl.

MEDNIKOV, F.A.

Construction of medium and small wood resin extraction plants.
Gidroliz.i lesokhim.prom. 12 no.6:20-22 '59.
(MIRA 13:2)

1. Leningradskaya lesotekhnicheskaya akademiya.
(Gums and resins)

MEDNIKOV, F.A.; USHKOVA, Ye.V.; GOLUBEVA, N.N.

Using screw presses and gasoline for the extraction of resinous substances from fresh and old tar-impregnated wood. Trudy LTA no.87:39-47 '59. (MIRA 13:4)
(Gums and resins)

Mednikov, F.A.

Full utilization and processing of conifer needles. Trudy LTA no.87:49-54 '59. (MIRA 13:4)
(Coniferae--By-products)

MEDNIKOV, F.A.; BELONUCHKIN, P.P.

Ten-year system of spruce tapping in the Tikhvin wood-chemical establishments. Gidroliz.i lesokhim.prom. 13 no.3:25-26 '60. (MIRA 13:7)

1. Leningradskaya lesotekhnicheskaya akademiya (for Mednikov).
2. Leningradskiy sovnarkhoz (for Belonuchkin).
(Leningrad Economic Region--Tree tapping)

MEDNIKOV, F., dotsent

Complex treatment of conifer twigs. Prom.koop. 14 no.9:20 S '60. (MIRA 13:9)

1. Lesotekhnicheskaya akademiya im. S.M.Kirova, g.Leningrad.
(Wood waste) (Wood--Chemistry)

MEDNIKOV, F.A.; AKIMOVA, R.A.; USHKOVA, Ye.V.

Processing of tar-impregnated wood in continuous screw units.
Gidroliz. i lesokhim.prom. 14 no.2:5-7 '61. (MIRA 14:3)

1. Leningradskaya lesotekhnicheskaya akademiya im. S. M. Kirova.
(Wood—Chemistry)

SLAVYANSKIY, Aleksey Konstantinovich, prof.; SHARKOV, Vasiliy Ivanovich, prof.; LIVEROVSKIY, Aleksey Alekseyevich, dots.; BUYEVSKOY, Anatoliy Vasil'yevich, dots.; MEDNIKOV, Fedor Alekseyevich, dots.; LYAMIN, Vladimir Aleksandrovich, dots.; SOLODKIY, Fedor Timofeyevich, dots.; TSATSKA, Elio Mat'-Iudovich, dots.; DMITRIYEVA, Ol'ga Andreyevna, assistent; NIKANDOROV, Boris Fedorovich, inzh.; GORDON, L.V., kand. tekhn. nauk, retsenzent; SUKHANOVSKIY, S.I., red.; KHOT'KOVA, Ye.S., red.izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Chemical technology of wood] Khimicheskaia tekhnologiia drevesiny. Moskva, Goslesbumizdat, 1962. 574 p. (MIRA 16:4)
(Wood—Chemistry)

MEDNIKOV, F.A.; MALEVA, I.L.

Simplified method for turpentining resinous species. Gidroliz. i lesokhim. prom. 18 no.5:18-20 '65. (MIRA 18:7)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova (for Mednikov). 2. Spetsial'noye proyektno-konstruktorskoye byuro Gosleskomiteta (for Maleva).

MEDNIKOV F. G.

PHASE I BOOK EXPLOITATION 899

Mekhanizatsiya i avtomatizatsiya liteynogo proizvodstva (Mechanization and Automatic Control of Founding Processes) [Leningrad] Lenizdat, 1957. 224 p. 3,000 copies printed.

Ed.: (title page): Sokolov, A.N.; Ed.: (inside book): Yemel'yanova, Ye. V.; Tech. Ed.: Rodchenko, N.I.

PURPOSE: This book is intended for engineers and technical personnel working in the founding industries.

COVERAGE: The book presents experience gained by several Leningrad plants in the field of mechanization and automation of metal casting processes. It is stated that in total production of castings the Soviet Union is catching up with the U.S.A., and in production of steel castings the USSR is already leading. Soviet production of castings in 1955 amounted to 11 million tons, 2 million of which were steel castings. No personalities are mentioned. There are 33 references, 29 of which are Soviet, 3 English, and 1 German.

IVANOV, Ye. K., and MEDNIKOV, F. G., :Pressure Casting of Steel, p. 44

Card 1/3

BILENKO, S.A.; IZRAILEVICH, L.A.; MEDNIKOV, G.V.

Indexes of the degree of mechanization in breweries. Spirt. prom. 28 no.7:29-32 '62. (MIRA 17:2)

1. TSentral'nyy nauchno-issledovatel'skiy institut pivo-bezalkogol'noy i vinnoy promyshlennosti.

MEDNIKOV, I., polkovnik

Let's effectively teach and educate the secretaries of party organizations. Komm.Vooruzh.Sil 1 no.3:30-34 F '61. (MIRA 14:8)
(Communist Party of the Soviet Union)

MEDNIKOV, I., general-mayor; SOSHNEV, V., polkovnik

Increase the responsibility of party organizations for admission to the CPSU. Komm.Vooruzh.Sil 3 no.24:25-30 D '62. (MIRA 15:12)

(Russia--Armed forces--Political activity)
(Communist Party of the Soviet Union--Party Work)

MEDNIKOV, I. A.

5

7 7

Citric and malic acids from vegetable matter. I. A. Mednikov, M. K. Malov, and L. A. Kochulkova. U.S.S.R. 106,556, July 25, 1957. The acids in vegetable matter, e.g., aq. exts. of cotton-plant leaves or the waste alk. exts. of *Nicotiana rustica*, are pptd. as Ca salts which are subsequently decompd. by H_2SO_4. It is preferable to treat the aq. and the solid phases separately. The solid phase is treated in an aq. medium with H_2SO_4 until all the Ca ions are combined as sulfates. The mixt. is filtered and the acid filtrate is treated with $(NH_4)_2SO_4$ to salt out the components. The mixt. is filtered and the 2nd filtrate is extd. with Me_2CO which is subsequently driven off. The residue is treated with chalk to ppt. Ca citrate and malate. The original liquid phase is vaporized to ppt. out the Ca salts. The latter are combined and treated with H_2SO_4, using 50% of the theoretically needed quantity. This removes all the impurities with the gypsum. The mixt. is filtered, evapd., and the Ca malate pptd. on cooling is sepd. from the citrate remaining in soln. The Ca citrate is then sepd. by usual means. M. Hosch

MEDNIKOV, I.A.

24909. Mednikov, I.A. O Raschete Herazreznykh Balok I Ram S Razlichnymi Momentami Inertsii V Proletakh. Trudy Mosk. Avtomob.- Dor. In- Ta Im. Molotova, Vip. Ii, 1949, S. 94-113

So: Letopis' No. 33, 1949

MEDNIKOV, I.A.

24910. Mednikov, I.A. Razvitiye Teoremi Vinklra. Opredeniye Raschetnogo Momenta V Balkakh I Zagruzheniye Liniy Vliyaiya Preryrno Raspredede nnimi Nagruzkami. Trudy Mosk. Avtomob.-Dor. In-Ta Im. Modotova, Vip. II,1949. S. 114-42--Bibliogr: 6 Nazr

So: Letopis' No. 33, 1949

MEDNIKOV, I., dotsent.

Calculating the central load of rectangular road slabs. Avt. transp. 32 no.1:18-19 Ja '54. (MLRA 7:8)
(Roads, Concrete) (Civil engineering)

SOV/124-58-10-11455

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 10, p 108 (USSR)

AUTHOR: Mednikov, I.A.

TITLE: Extension of the Applicability of Certain Tables for the Analysis of Plates (Rasshireniye primenimosti nekotorykh tablits dlya rascheta plit)

PERIODICAL: Tr. Mosk. avtomob.-dor. in-ta, 1957, Nr 20, pp 149-152

ABSTRACT: An equation is adduced making it possible, given tabular values of stresses in a plate calculated for two different values of that ratio, to calculate stresses at any other values of Poisson's ratio.

V.G. Rekach

Card 1/1

124-58-9-10303

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 129 (USSR)

AUTHOR: Mednikov, I. A.

TITLE: Bending of a Circular Plate Supported at Discrete Points Along the Circumference (Izgib krugloy plity, opertoy v otdel'nykh tochkakh po konturu)

PERIODICAL: Tr. Mosk. avtomob.-dor. in-ta, 1957, Nr 20, pp 161-169

ABSTRACT: An examination of the bending of a circular plate subjected to a generic axisymmetric transverse loading of arbitrary form. The plate is pin-joint supported at discrete equidistant points along the circumference. The work is based on Nadai's solution (Nadai, A. Phys. Zeitschrift, 1922, Vol 23, Nr 18, p 366) for a plate bending under a loading that is distributed along the circumference according to the law

$$q = \frac{P}{\pi a} \left[\frac{1}{2} + \cos \theta \right]$$

and a balanced concentrated force P which is applied at the point $(r=a; \theta=0)$ of the circumference. For the case of m

Card 1/2

124-58-9-10303

Bending of a Circular Plate Supported at Discrete Points (cont.)

supports the solution is obtained by superimposing m Nadai solutions. If the number of supports is odd, the contour conditions are not strictly satisfied.

S. N. Sokolov

1. Plates--Deformation 2. Plates--Mathematical analysis

Card 2/2

MEDNIKOV, I.A., dots., kand.tekhn.nauk

Durability of asphalt-concrete pavements on cement-concrete beds.
Trudy MADI no.22:54-62 '58. (MIRA 12:4)
(Pavements, Bituminous---Testing)

MEDNIKOV, I.A.

Study of the coefficients of an elastic foundation with two characteristics. Osn., fund. i mekh. grun. 3 no.4:15-16 '61. (MIRA 14:8)

(Foundations)

MEDNIKOV, I.A.

Method for determining soil stability in designing concrete pavements. Avt. dor. 24 no. 1:26-27 Ja '61. (MIRA 14:2)
(Pavements concrete)

MEDNIKOV, I.A.

Calculating the thickness of the reinforcing laywer of cement-concrere slabs. Avt. dor. 26 no.6:22-24 Je '63. (MIRA 16:8)

(Concrete slabs)

MEDNIKOV, I.A.

Calculation of asphalt-concrete pavements on cement-concrete beds by limiting conditions. Avt. dor. no.10:25-27 O '64. (MIRA 17:12)

AFANAS'YEV, A.M.; YERMOLENKO, V.A.; KISELEV, V.A., zasl. deyatel' nauki i tekhniki RSFSR, doktor tekhn. nauk, prof.; MEDNIKOV, I.A.; OVSYANNIKOVA, M.V.; SLOBODCHIKOV, A.Ya.; TYAZHELOV, N.N.; FEDOROV, Yu.P.; TSVEY, I.Yu.; DARKOV, A.V., doktor tekhn.nauk, prof., retsenzent; FEDOROV, Yu P., kand. tekhn. nauk, nauchn. red.

[Structural mechanics in examples and problems] Stroitel'naia mekhanika v primerakh i zadachakh. Moskva, Stroiizdat, 1964. 341 p. (MIRA 18:1)

KISELEV, Vasiliy Aleksandrovich, doktor tekhn. nauk, prof.;
REKACH, V.G., doktor tekhn.nauk, retsenzent;
MEDNIKOV, I.A., kand. tekhn. nauk, dots., nauchn.red.

[Structural mechanics; a special course (the dynamics and rigidity of structures)] Stroitel'naia mekhanika; spetsial'nyi kurs (dinamika i ustoichivost' sooruzhenii). Moskva, Stroiizdat, 1964. 331 p. (MIRA 18:2)

GORETSKIY, Leonid Ignat'yevich, dots., kand. tekhn. nauk;
MEDNIKOV, I.A., dots., kand. tekhn. nauk, retsenzent;
TRIGONI, V.Ye., kand. tekhn. nauk, nauchn. red.

[Theory and calculation of cement-concrete pavements subject to temperature action] Teoriia i raschet tsementobetonnykh pokrytii na temperaturnye vozdeistviia. Moskva, Transport, 1965. 283 p. (MIRA 18:3)

MEDNIKOV, I.A.

Investigation of the depth of the dynamically active area of soil and some of its characteristics. Osn., fund. i mekh. grun. 7 no. 6:8-9 '65. (MIRA 18:12)

MEDNIKOV, I.A.

Method for determining the deformed layer of road foundation and earth roadbed. Avt.dor. 28 no.10:14-15 O '65.
(MIRA 18:11)

MECHNIKOV, Il'ya Il'ich; KROTKOV, F.G., glavnyy red.

[Academic collection of works] Akademicheskoe sobranie sochinenii. Moskva, Gos.izd-vo med.lit-ry, 1955-56. 11 v. (MIRA 12:9)

(BIOLOGY)

MEDNIKOV, Ilarion Leonidovich [Miednykov, I.L.]

Machinery should be in reliable hands. Mekh.sil'.hosp. 11 no.1: 6-7 Ja '60. (MIRA 13:4)
(Agricultural machinery--Maintenance and repair)

GORBACHEVSKIY, Viktor Andreyevich; LESHKEVICH, Andrey Ivanovich;
MIKHAYLOVSKIY, Yuriy Vsevolodovich; SHESTAKOV, Boris
Aleksandrovich; MEDNIKOV, I.N., retsenzent; MOROZOV, K.P.,
retsenzent; KHASMAN, P.Ya., otv. red.; PLESKO, Ye.P., red.;
GRECHISHCHEVA, Z.I., tekhn. red.

[Fundamentals of lumbering and the operation of machines and
mechanisms] Osnovy lesozagotovok i ekspluatatsiia mashin i mekhanizmov. V.A.Gorbachevskii i dr. Moskva, Goslesbumizdat,
1961. 319 p. (MIRA 15:2)
(Lumbering--Machinery)

MEDNIKOV, Ivan Nikolayevich; IVANOV, P.V., red.

[Adjusting the MAZ-501 logging truck] Regulirovka avtomobilia-lesovoza MAZ-501. Moskva, Izd-vo "Lesnaia promyshlennost'," 1964. 60 p. (MIRA 17:5)

MEDNIKOV, M., inzh.

Steel loader in a forge shop. Izobr. i rats. no. 4:18-19 Ap '61.
(MIRA 14:4)

(Fork lift trucks)

MEDNIKOV, M.I., inzh.

Changing rotational speed. Izobr. i rats. no.9:38 S '61.
(MIRA 14:8)
(Mechanical movements)

MEDNIKOV, M.I., inzh.

Mechanizing the area of hammer forging in the forge of the Odessa Crane Plant. Stroi. i dor. mash. 8 no.1:31-33 Ja '63. (MIRA 18:5)

ACC NR: AP6035873 SOURCE CODE: UR/0413/66/000/020/0094/0094

INVENTOR: Ivanovskiy, G. F.; Nazarov, A. S.; Mednikov, M. I.; Makh, E. A.; Barabanshchikov, S. K.

ORG: None

TITLE: A sorption vacuum pump. Class 27, No. 187205

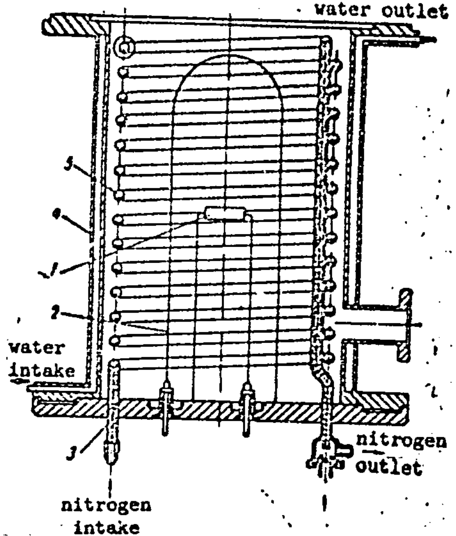
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 94

TOPIC TAGS: vacuum pump, sorption

ABSTRACT: This Author's Certificate introduces: 1. A sorption vacuum pump containing a getter substance evaporator located within the sorption surface which is cooled by a low temperature refrigerant. The pumping range is expanded by making the sorption surface in the form of a hollow coiled tube with gaps between the turns. This coil is located within the water-cooled jacket of the pump. 2. A modification of this pump with a heater inside the coil cavity to increase heating efficiency in outgassing the pump.

Card 1/2 UDC: 533.582

ACC NR: AP6035873



1 and 2—evaporators; 3—coiled tubing; 4—pump housing; 5—heater

SUB CODE: 13/ SUBM DATE: 15May65

Card 2/2

ACC NR: AP7009083 SOURCE CODE: UR/0413/67/000/003/0058/0058

INVENTOR: Kovalev, L. K.; Mednikov, M. I.; Mazhorov, A. D.

ORG: None

TITLE: A device for vaporizing materials in a vacuum. Class 21, No. 191002

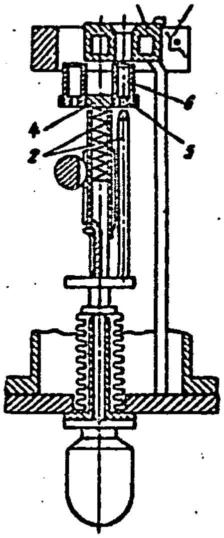
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1967, 58

TOPIC TAGS: vaporization, vacuum technology, electron gun

ABSTRACT: This Author's Certificate introduces a device for vaporizing materials in a vacuum. The installation contains an electron gun, a mechanism for feeding the material to be vaporized into the working zone and a cooled crucible. Contamination of the working material is eliminated by using a disc holding accessory crucibles for the various substances to be vaporized which are introduced in sequential order into the cooled crucible.

Card 1/2 UDC: 66.041.456-982:621.389

ACC NR: AP7009083



1--electron gun; 2--feed mechanism; 3--cooled crucible; 4--disc; 5--accessory crucible; 6--substance to be vaporized

SUB CODE: 11, 13/ SUBM DATE: 22Mar65

Card 2/2

ACC NR: AP7009126 SOURCE CODE: UR/0413/67/000/003/0115/0115

INVENTOR: Mednikov, M. I.; Makarov, V. I.

ORG: None

TITLE: A method for studying the fatigue strength of thin-walled hermetically sealed components. Class 42, No. 191180

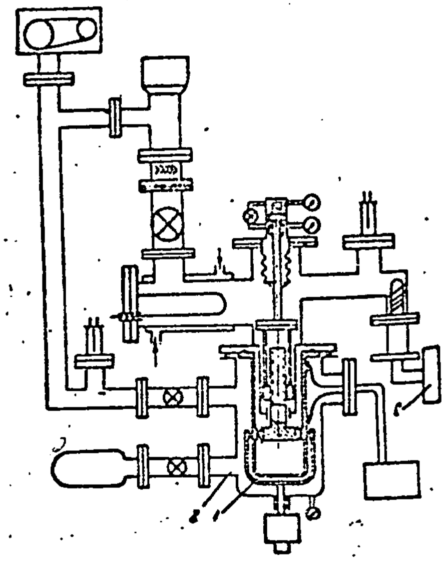
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1967, 115

TOPIC TAGS: test facility, hermetic seal, fatigue strength

ABSTRACT: This Author's Certificate introduces a method for studying the fatigue strength of thin-walled hermetically sealed components on a test stand with a vacuum chamber using a registration device. The procedure is designed for determining the point where microscopic fatigue cracks begin to form and for studying the process of crack propagation. The part to be tested is placed in the vacuum chamber in such a way that the chamber is divided into two sections. The spaces above and below the specimen are evacuated and the upper space is then filled with a test gas such as helium. The part is loaded according to a predetermined law and the registration instrument (gas analyzer) is used for determining the increase in the quantity of test gas beneath the component due to the development of microscopic fatigue crackes in the given specimen during loading. The readings of the instrument are used for studying the process of appearance and propagation of microscopic fatigue cracks.

Card 1/2 UDC: 620.178.73-762

ACC NR: AP7009126



1--component to be tested; 2--vacuum chamber; 3--gas analyzer

SUB CODE: 13, [illegible] SUBM DATE: 15Jul65

Card 2/2

ACC NR: AP6035730 (A) SOURCE CODE: UR/0413/66/000/019/0094/0094 1

INVENTOR: Al'ftan, E. A.; Deyanova, S. V.; Firsov, A. M.; Miklashevskiy, S. A.; Afonina, L. G.; Mednikov, M. M.

ORG: none

TITLE: Thermocouple. Class 42, No. 186733 14

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 94

TOPIC TAGS: thermocouple, microthermocouple, temperature instrument

ABSTRACT: This Author Certificate introduces a thermocouple (see Fig. 1) containing a wire surrounded by a metal layer, which is isolated from the wire by an insulating layer, so the metal layer contacts the wire only at the tip. To attain

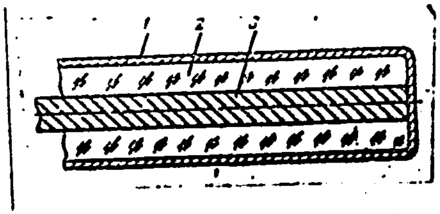


Fig. 1. Longitudinal section through thermocouple

1 - Metal layer; 2 - glass insulation; 3 - microwire. 15

Card 1/2 UDC: 536.532-181.4002.4

ACC NR: AP6035730

microminiaturization of the thermocouple, the outer metal layer is deposited in the shape of a cylinder on the glass-insulated microwire. Orig. art. has: 1 figure.

SUB CODE: 13, 14/ SUBM DATE: 28Jun65/ ATD PRESS: 5106

Card 2/2

1. MEDNIKOV, M. V.

2. USSR (600)

4. Mosquitoes

7. Endocrine glands of the mosquitoes Corpora allata and Corpora
cardiaca (fam. Culicidae).
Zool. zhur. 31 no.5, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

GABAY, Ya.A.; MEDNIKOV, M.Ya. (Baku)

Isolated plasmocytoma of the mesenteric lymph node. Arkh. pat. no.1:77-79 '64. (MIRA 17:11)

1. Iz Voyennogo gospitalya (nachal'nik A.A. Aslanov) i patologoanatomicheskoy laboratorii (nachal'nik M.L. Bershchanskiy).

CHAPLIN, B.N., kand. tekhn. nauk; MEDNIKOV, N.N., gornyy inzh.

Optimal size of crushing for the hydraulic conveying of original rock in strip mines. Gor. zhur. no.5:22-25 My '64. (MIRA 17:6)

1. Moskovskiy institut radioelektroniki i gornoy elektromekhaniki.

MEDNIKOV, O.I.

Parametric microwave frequency divider. Radiotekh. i elektron. 10 no.6:1159-1160 Je '65. (MIRA 18:6)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.

L 12961-63 EWT(1)/BDS/EEC(b)-2 AFFTC/ASD/RADC Pi-4 GG/IJP(C)
S/109/63/008/004/015/030

AUTHORS: Mednikov, O. I., and Parygin, V. N. 62

TITLE: On the sorting of ammonia molecules in a molecular generator 25

PERIODICAL: Radiotekhnika i elektronika, v. 8, no. 4, 1963, 653-658

TEXT: The author compares the effectiveness of sorting ammonia molecules in a molecular generator with either a transversal or a longitudinal field. Sorting systems such as a bifilar spiral and a set of diaphragms are investigated both theoretically and experimentally. Maximum power output of the molecular generator was recorded with the use of a bifilar spiral for sorting the molecules. The relationship between the power generated and the length of the sorting in the diaphragm system was studied. The author comes to the conclusion that a bifilar spiral constitutes an effective system for sorting molecules and makes it possible to obtain a signal strength five times stronger than can be done—with identical parameters—by using a quadrupole capacitor.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo universiteta im. M. V. Lomonosova Kafedra teorii kolebaniy (Physics Department, Moscow State University imeni M. V. Lomonosov, Chair of Oscillation Theory.)

SUBMITTED: April 7, 1962

Card 1/1

MEDNIKOV, O.I.

Wide-band parametric frequency dividers. Vest. Mosk. un. Ser. 3:Fiz., astron. 18 no.5:67-73 S-O '63. (MIRA 16:10)

1. Kafedra kolebaniy Moskovskogo gosudarstvennogo universiteta.

ACCESSION NR: AP4041439 S/0188/64/000/003/0068/0071

AUTHOR: Mednikov, O. I., Semenova, T. G.

TITLE: The effect of circuit and diode parameters on the work of a parametric frequency divider

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 3, 1964, 68-71

19

TOPIC TAGS: frequency divider, Q factor, division band, repetition scaling band, parametric frequency divider, circuit paramoter effect, diode parameter effect, twin circuit frequency divider, pumping amplitude

ABSTRACT: The authors note that in a number of previously published papers dealing with twin-circuit parametric frequency dividers with nonlinear capacitance, it has been shown that maximum division bands should be obtained if the Q-factors of the circuits are equal. Furthermore, experiments have shown that it is essential to determine the Q's with proper allowance for losses in the diode, since these losses may frequently play a basic role. The purpose of the present article is to study the dependence of the division band (repetition-scaling band) on the parameters of the circuit and of the diode, as well as on the pumping amplitude. The divider circuit is shown in Figure 1 of the Enclosure. The scaling or

Card 1/4

ACCESSION NR: AP4041439

division factor was selected as equal to 4, with the pumping frequency at about 1 Mc. Two diode types were used: with high and low losses in this band. The automatic bias voltage on the diode was regulated by means of the variable resistance R_3, shunted by the large capacitance C_3. The authors determined the conditions for achieving the maximum division band for both diode types. Of the diodes used in the experiment, type D7 had the larger losses. In this case, it was found that the generation and division bands, as well as the slope of the frequency-response curves, were practically independent of the ratio of the Q-factors of the insulated circuits Q_{10} and Q_{20}. In the case of the low-loss diode, the authors arrived at the conclusion that the equivalent conductance of the circuit is not a function of the diode parameters, with the Q-factors in the working mode determined by the intrinic losses of the circuits. The dependence of the division band on detuning of the circuits and pumping amplitude was also studied. "The authors express their sincere gratitude to Ye. R. Mustel', V. N. Parygin and N. K. Maneshin for their attention to the work and valuable advice." Orig. art. has: 3 formulas and 4 figures.

ASSOCIATION: Kafedra teorii kolebaniy, Moskovskiy Gos. Universitet. (Department of Oscillation Theory, Moscow State University)

Card 2/4

ACCESSION NR: AP4041439

SUBMITTED: 01Jul63	DATE SEL: 21Jul64	ENCL: 01
SUB CODE: EC	NO REF SOV: 007	OTHER: 000

Card 3/4

ACCESSION NR: AP4041439

ENCLOSURE: 01

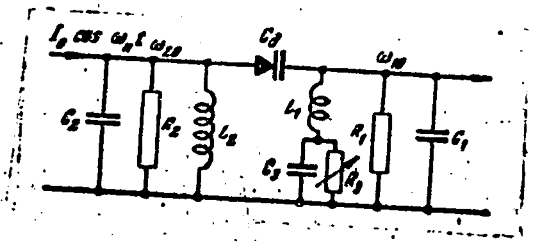


Fig. 1 - Schematic diagram of the frequency divider

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L [illegible]-65 EWT(l)/EWA(h) Peb
ACCESSION NR: AP5015821

UR/0109/65/010/006/1159/1160
621.374.4

15
B

AUTHOR: Mednikov, O. I.

TITLE: Parametric frequency divider for shf band

SOURCE: Radiotekhnika i elektronika, v. 10, no. 6, 1965, 1159-1160

TOPIC TAGS: frequency divider, shf divider, parametric frequency divider

ABSTRACT: The results of an experimental investigation of a parametric frequency divider with an input frequency of about 1800 Mc are reported. The device has a wide division band and high conversion factor in a division-by-4 circuit. The maximum conversion factor obtained was 12—16% at 5—50 mw. The pumping-frequency band for the maximum conversion factor was 30—35 Mc, and the entire synchronous-condition band was 120—160 Mc (or 6—9% of the average pumping frequency). "The author wishes to thank Ye. P. Mustel', V. N. Parygin, and N. K. Maneshin for their attention to the work and discussing the results." Orig. art. has: 1 figure.
[03]

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Physics Faculty, Moscow State University)

Card 1/2

L 58281-65

ACCESSION NR: AP5015821

SUBMITTED: 25Sep64 ENCL: 00 SUB CODE: EC

NO REF SOV: 007 OTHER: 001 ATD PRESS: 4037

Card 2/2

MEDNIKOV, V.

Research is always justified. Inform. biul. VDNKH no.2:6-7
F '65. (MIRA 18:3)

1. Nachal'nik byuro tekhnicheskoy informatsii Kiyevskogo zavoda stankov-avtomatov imeni M. Gor'kogo.

TEREMYAZEV, G., inzh.; GLEBOV, V., inzh.; LUZANOV, B.; MEDNIKOV, V.; GURMAN, V., inzh.; SHARKHOV, A., inzh.; KOZLOV, N.; KULIK, B.; PETROV, N., inzh.; POTOKIN, A., master po pnevmopriboram

Fxchange of experience. Avt. transp. 43 no.9:49-53 S '65.
(MIRA 18:9)

1. Tashkentskiy avtobusnyy park No.2 (for Potokin).

MEDNIKOV, V.M. [Miednikov, V.M.], inzh.

Bench for pipe bending. Nauka i zhyttia 10 no. 11:27 N '60.
(MIRA 14:4)

(Pipe bending)

MEDNIKOV, V.M.; PIYEVSKIY, L.S.

Unit for a hydraulic cleaning of castings. Mashinostroitel'
no.2:18-19 F '62. (MIRA 15:2)
(Founding--Equipment and supplies)

CHERKASSKIY, P. Z.; MEDNIKOV, V. M.

Checking die-casting molds. Mashinostroitel' no.12:29 D '62.
(MIRA 16:1)

(Die casting—Equipment and supplies)

MEDNIKOV, V.M.

Automatic eight-spindle lathe. Mashinostroitel' no.2:17 F '63.
(MIRA 16:3)

(Lathes)

S/080/60/033/010/001/029
D216/D306

AUTHORS: Klevke, V.A., and Mednikov, V.Ye.

TITLE: Production developments of nitrogeneous and complex fertilizers in the Soviet-Union

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 10, 1960, 2153 - 2165

TEXT: The present national production of nitrogeneous products has reached a high level and is mainly based on the output of synthetic ammonia yielding a higher quantity of nitrogeneous fertilizers. In 1959 the production of nitric fertilizers exceeded by four times the output of 1940. In 1965, mineral fertilizer production should reach up to 31 million tons, i.e. 20.4 million tons more than in 1958. The authors then give the planned distribution until 1965 of urea nitrate, liquid and complex fertilizer over the various Soviet regions (as % of total quantity)

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Production developments of ... S/080/60/033/010/001/029
D216/D306

	Urea nitrate	Liquid fertilizer	Complex fertilizer
USSR	100	100	100
RSFSR	74.4	43.7	36.6
Central region	24.2	40.7	36.6
Volga region	8.4	-	-
North Caucasus	6.6	-	-
Urals	28.0	-	-
West Siberia	3.6	-	-
East Siberia	3.6	3.0	-
Ukrainian SSR	12.5	38.3	-
Belorussian SSR	2.6	-	36.9
Uzbek SSR	7.5	18.0	-
Kazakh SSR	-	-	15.3
Armenian SSR	3.0	-	5.1
Latvian SSR	-	-	6.1

These data show that during the current seven-year period, 95 % of urea nitrate would be used in the RSFSR. Liquid nitrate fertilizer

Card 2/6

S/080/60/033/010/001/029
D216/D306

Production developments of ...

in the near future will have a wide application in the central regions and in the Ukraine. By 1965, most of the cultivated areas of the RSFSR, the Ukraine and Uzbekistan will be using the complex fertilizers. The authors then proceed to give some production schemes. Ammonium nitrate: the principal stages of ammonium nitrate production are (i) neutralization of nitric acid with gaseous ammonia (ii) boiling-off of resulting solution to dryness (iii) crystallization of residue (iv) drying and cooling of the salt and (v) packing. In order to improve production, larger production units are required as well as the changing of a two stage evaporation plant to a single stage (Fig. 2). Urea nitrate: the importance of urea nitrate production has encouraged development of a most economical plant (i) choice of an optimum of NH_3 and CO_2 on the synthesis of urea nitrate, returning the escaping gases back into the distillation columb by means of an aqueous solution of carbon ammonial salts. The water in the given case could be compensated by increasing the proportion between ammonia and carbonic acid and also by increasing temperature and pressure, (ii) investigation of the synthesis process of urea nitrate (choice of materials, preferen-

Card 3/6

Production developments of ... S/080/60/033/010/001/029
D216/D306

tially dissolving urea nitrate and water by removing them from the reaction zone by application of catalysts); (iii) introduction of two stage distillation by which the yield of ammonia nitrate could be cut down from 3.5 - 4.5 tons per ton of urea nitrate to one ton; (iv) introduction of carbonic acid in liquid from which would eliminate costs on compressors and would increase the conversion to urea nitrate from 65 to 70 %; (v) industrial requirements emphasize the cut of biurette content from 0.8 to 0.03 % and the technology of the process should be improved to give this; (vi) improvement of the physico-chemical properties of urea nitrate, its feeding and granulating properties and others; (vii) investigation into the synthesis of urea nitrate at higher pressures and temperatures in the coil type apparatus; (viii) for large tonnage production, large plants and machinery are needed and handling including railway transporters. In the last decade production of complex fertilizers in the USSR and elsewhere has been developed along the line of nitric acid decompositions of phosphates. Complex fertilizers contain all basic materials required for growth (N_2, P_2O_5, K_2O). The compa-

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Production developments of ... S/080/60/033/010/001/029
D216/D306

rison of methods used and composition of complexis is given below (in %):

Production method	N	P_2O_5	K_2O	Total
Freezing $Ca(NO_3)_2$	14.8	14.8	15.2	44.8
Sulphuric acid	11.8	11.8	11.8	35.4
Sulphate	14.5	10.0	10.0	34.5
Carbonates	14.0	10.5	10.5	35.0.

On other forms of nitrogeneous fertilizers the authors mention urea nitrate condensation with formaldehyde; the product of this reaction contains about 40 % of total nitrogen of which 25 % is water soluble. This product could be used as an additive material to other nitrogeneous and phosphate fertilizers. There are 5 figures, and 14 Soviet-bloc references.

SUBMITTED: April 25, 1960

Card 5/6

MEDNIKOV, V.Ye., kand. ekonom. nauk (Moskva)

Prospects of the production of nitrogen fertilizers in the northwestern region of the U.S.S.R. Trudy LIEI no.37:34-40 '61. (MIRA 18:4)

SERGEYEV, Andrey Mitrofanovich; **MEDNIKOV**, Yakov Rafailovich; **MEDVEDEVA**, R., red.; **TELEGINA**, T., tekhn.red.

[The journal-voucher accounting system where accounting is mechanized; from the practice of the Baltic Plant in Leningrad] Zhuranl'no-ordernaia forma schetovodstva pri mekhanizatsii ucheta; iz opyta Baltiiskogo zavoda Leningrada. Moskva, Gosfinizdat, 1959. 119 p. (MIRA 14:2)

(Leningrad--Accounting) (Machine accounting)

MEDNIKOV, Ye.A., kand.tekhn.nauk

Length of a smooth transition and the relative elongation of edges during the shaping of pipe. Stal' 23 no.4:348-351 Ap '63. (MIRA 16:4)

1. Chelyabinskiy truboprokatnyy zavod.
(Pipe mills) (Pipe, Steel—Welding)

MEDNIKOV, YE. P.

"Acoustic Coagulation of Aerosols, and Its Application in Purifying Dust Carrying Industrial Gases, Particularly Those in Heat Power Industry." Min. Higher Education USSR, Moscow Order of Lenin Power Inst. imeni V. M. Molotov, Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

MEDNIKOV, YE.

Category : USSR/Acoustics - Ultrasound J-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2148

Author : Mednikov, Ye.P.
Title : Sonic Coagulation of Aerosols and its Application to Dust Trapping

Orig Pub : Primeneniye ul'traakustiki k issled. veshchestva, Vyp. 3, M., MOPI, 1956, 147-173

[illegible]

Abstract : An analysis of the ponderomotive, orthokinetic, and radiation theories of the coagulation of particles suspended in an acoustic field shows that these theories are inconsistent. Considerations are cited to confirm the assumption that sonic coagulation of aerosols is none other but Brownian coagulation of particles, intensified by the sonic oscillations. A diagram and description are given of a constructed sound siren, covering a continuous range of frequencies up to 15-16 kc, and capable of producing a sound wave up to levles of 163-165 db (3-5 x/cm^2). The aur consumption is 2.0 m^3/min at 0.5 atmos gauge. The sounding chamber of the setup for the study of sonic coagulation of aerosols is a cylindrical tube with an internal diameter of 125 mm, divided into two sections, 750 and 1300 mm long, so that the feight of the chamber can be varied. The system described guarantees that the aerosol will not be broken up by the aur from the siren in the sounding chamber. Investigation of sonic coagulation of an oil fog has shown that 1) the effectiveness of the sonic coegulation depends on sound frequency; there is an optimum frequency (2--4 kc); 2) the

Card : 1/2

Category : USSR/Acoustics - Ultrasound

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 2148

J-4

output particle concentration increases linearly with the input concentration; 3) at an input concentration higher than 15-20 g/m^3 the degree of purification remains practically constant, but it drops sharply if the input concentration is reduced below 4-5 g/m^3; 4) the effectiveness of sonic coagulation depends strongly on the time of sounding, dropping sharply when the sounding time drops below 1-1.5 sec., and increasing slowly when the sounding time is increased above 4-5 sec; 5) the effectiveness of sonic coagulation is assured by a sound with intensity 0.1--0.3 w/cm^2. Increasing the intensity produces less of an effect than increasing the sounding time. On the basis of the literature data and of the formulated concepts of the mechanism of sonic coagulation, the author evaluates the specific features and the general laws of sonic coagulation of aerosols. A diagram is given for a commercial sonic dust-trapping installation, an equation is derived for the energy consumed in sounding, the advantages and shortcomings of the sonic-coagulation method are noted, and fields of probable commercial applications of ultrasonic coagulation of aerosols are indicated. Bibliography, 17 titles.

Card : 2/2

MEDNIKOV, Ye. P.

"Coagulation of Aerosols by Ultrasound."

report presented at the 6th Sci. Conference on the Application of Ultrasound in the investigation of Matter, 3-7 Feb 1958, organized by Min. Education RSFSR and Moscow Oblast Pedagogic Inst. im N. K. Krupskaya.

46-4-1-[illegible]/3

AUTHOR: Mednikov, Ye. P.

TITLE: Two Designs of Sirens for Experimental Purposes
(Dve konstruktsii eksperimental'nykh zvukovykh siren.)

PERIODICAL: Akusticheskiy Zhurnal, 1958, Vol.IV, Nr.1,
pp. 59-63. (USSR)

ABSTRACT: Acoustical sirens are the best apparatus for study of coagulation of aerosols and other processes occurring in gaseous media under the action of acoustic waves. Sirens provide the necessary intensity (10 W/cm^2 and higher), they cover a wide range of frequencies including range 1-5 kc/s, which is the most effective in coagulation of aerosols, and they have a higher coefficient of acoustical energy transfer in a gaseous medium than any other sound sources. Two types of acoustical sirens are known: (1) axial, and (2) radial sirens. For investigation of aerosol coagulation and similar processes only axial sirens are used. In axial sirens the apertures through which the pulsating stream of air is flowing are distributed axially, and the sound produced is directed onto the studied object by means of a special horn. The present paper describes two new designs of axial sirens. Fig.1 gives the cross-section of an axial siren which has

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been succesfully used for many months. Constructional details of this siren are given in full. Fig.2 shows the siren 1 together with a d.c. motor 3 (0.4 kW and 2800 rev/min). The motor and the siren are coupled by a gear box 2 used for reduction of angular speed. This siren can produce sound up to 15 000 c/s with a maximum sound level of 163-165 dB (3÷5 W/cm^2). To produce 160 dB (1 W/cm^2) a 0.5 atm air pressure is required. Fig.3 shows an improved model of the siren of Fig.1. This model was developed together with V. I. Rakov, and it differs from the earlier model primarily in the possibility of regulation of the axial gap between the stator and the rotor. A 0.25 kW d.c. motor with 1500 (3000) rev/min angular speed was used. The second model can produce sound of frequencies up to 6000 (12000) c/s, and the maximum sound intensity is approximately the same as in the first model. The pressure required to operate the second model is considerably less than that necessary for the first model. For best results all the apertures in the siren should be covered completely at the same time, the cross-section

46- 4-1-9/23

Two Designs of Sirens for Experimental Purposes.

of the wave guide which begins at the apertures and ends at the horn dome should have an exponential shape, and the supply of compressed air to the stator apertures should be free and uniform. There are 3 figures and 10 references, of which 4 are Soviet, 1 English, 2 American, 2 French and 1 a translation of a Western work into Russian.

ASSOCIATION: Institute of **Mineral Fuels**, Academy of Sciences of the USSR, Moscow (Institut goryuchikh iskopayemykh, AN SSSR, Moskva.)

SUBMITTED: February 11, 1957.

1. Sirens—Design

Card 3/3

LAVROV, N.V., doktor tekhn. nauk, prof.; MEDNIKOV, Ie.P., kand. tekhn. nauk;
NIKOLAYEV, A.I., kand. tekhn. nauk

Sound purification of gases from dust and prospects for its use in underground coal gasification. Podzem. gaz. ugl. no.1:18-22 '59. (MIRA 12:6)

1. Institut goryuchikh iskopayemykh AN SSSR.
(Sound waves--Industrial applications)
(Gas purification)
(Coal gasification, Underground)

BOGDANOV, I.F.; LAVROV, N.V.; MEDNIKOV, Ye.P.

Ultrasonic waves used for investigating, controlling, and intensifying physicochemical processes in the technology of fuel. Trudy IGI 11:205-214 '59. (MIRA 13:6)
(Fuel)
(Ultrasonic waves--Industrial applications)

MEDNIKOV, YE. P.

45

PHASE I BOOK EXPLOITATION SOV/5644

Vserossiyskaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov

Primeneniye ul'traakustiki k issledovaniyu veshchestva. vyp. 10. (Utilization of Ultrasonics for the Investigation of Materials. no. 10) Moscow, Izd-vo MOPI, 1960. 321 p. 1000 copies printed.

Eds.: V. F. Nozdrev, Professor, and B. B. Kudryavtsev, Professor.

PURPOSE: This book is intended for physicists and engineers interested in ultrasonic engineering.

COVERAGE: The collection of articles reviews present-day research in the application of ultrasound in medicine, chemistry, physics, metallurgy, ceramics, petroleum and mining engineering, defectoscopy, and other fields. No personalities are mentioned. References accompany individual articles.

Card 1/10

3

Utilization of Ultrasonics (Cont.) SOV/5644

Martynov, Ye. G., and A. K. Matveyev [Geologich. fak-t MGU - Geology Department of Moscow State University]. The Acoustic Anisotropy of Mineral Coals in Different Stages of Metamorphism 147

Cherchenko, G. V., V. M. Nikolayev, Ye. T. Bezrukov, and V. I. Belousov [Giprovostok neft' - State Institute for the Design and Planning of Petroleum Industry Establishments in the Eastern Regions]. First Results of the Use of the Ultrasonic Method in Determining the Saturation Pressure of Stratified Petroleum in Sredneye Povolzh' ye 157

Savinikhina, A. V. [Neftegazobyy n.-i. in-t. - Petroleum Gas Scientific Research Institute]. Ultrasonic Method of Determining the Temperature of the Onset of Crystallization of Paraffin 163

Mednikov, Ye. P. [ITI AN SSSR]. On the Theory of the Acoustical

Card 6/10 162

MEDNIKOV, Ye.P.

Acoustic coagulation of aerosols as a method for intensifying the purification of combustible and exhaust gases. Trudy IGI 16:329-351 '61. (MIRA 16:7)

(Gases--Purification)
(Ultrasonic waves--Industrial applications)
(Aerosols)

LAVROV, N.V.; MEDNIKOV, Ye.P.

On the scientific classification of dust and spray traps. Trudy IGI 16:315-328 '61. (MIRA 16:7)

(Gases--Purification) (Dust collectors)

24.1900

S/058/62/000/003/059/092
A061/A101

AUTHORS: Mednikov, Ye. P., Nikolayev, V. Yu.

TITLE: Mechanism of the destructive action of ultrasonics on the scale

PERIODICAL: Referativnyy zhurnal. Fizika, no. 3, 1962, 44, abstract 3G354 (Sb. "Primeneniye ul'traakust. k issled. veshchestva", no. 12, Moscow, 1960, 45-51)

TEXT: The cause of the destruction of the scale by ultrasonics is seen in the difference between the velocities of bending waves of the wall and scale, and in the low fatigue limit of the crystal bonds between the scale and wall, rather than the difference between moduli of elasticity or between acoustic resistances of the wall and scale.

[Abstracter's note: Complete translation]

Card 1/1

MEDNIKOV, Ye.P.; NIKOLAYEV, A.I.; NIKOLAYEV, V.Yu.

Acoustic dust collecting pilot plant of the Institute of Gas Investigations of the Academy of Sciences of the U.S.S.R. and the results of first experimental investigations. Trudy IGI 16:352-362 '61. (MIRA 16:7)

(Gases--Purification) (Dust collectors)
(Ultrasonic waves--Industrial applications)

MEDNIKOV, Yevgeniy Pavlovich; RADUSHKEVICH, L.V., doktor khim. nauk, prof., otv. red.; GUROV, K.P., red.izd-va; ASTAF'YEVA, G.N., tekhn. red.; VOLKOVA, V.V., tekhn. red.

[Accoustical coagulation and precipitation of aerosols] Akusticheskaia koaguliatsiia i osazhdenie aerozolei. Moskva, Izd-vo AN SSSR, 1963. 262 p. (MIRA 16:12)
(Aerosols) (Ultrasonic coagulation)

ACCESSION NR: AP3005631 S/0046/63/009/003/0383/0384

AUTHOR: Mednikov, Ye. P.

TITLE: On the hysteresis flow of small obstacles in a sound field

SOURCE: Akusticheskiy zhurnal, v. 9, no. 3, 1963, 383-384

TOPIC TAGS: hysteresis flow, acoustic field, spherical obstacle, sinusoidal wave, Reynolds number

ABSTRACT: The motion of spherical obstacles of radius r in an acoustic field of amplitude $A \gg r$ has been described briefly, and the resulting reciprocating motion predicted analytically for $Re < 1$. For a right angle wave $|u| = \text{const}$ the horizontal component of the acoustic wave flow toward the sphere is approximately

$$V_{xx} = \left(\frac{3}{2x_{11}} - \frac{3}{Re \cdot x_{11}^{2}}\right) u$$

and the vertical velocity

$$V_{xy} \simeq f \cdot \delta y \simeq f \cdot v_{-\infty} \left[1 - \sqrt{\frac{\left(\frac{1}{2} + \frac{3}{16} Re\right)\left(1 - \frac{3}{2} x_{12}^{-1}\right)}{\frac{1}{2} - \frac{3}{4} x_{12}^{-1} + \frac{3}{16} Re}}\right],$$

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ACCESSION NR: AP3005631

where f - frequency. For a sinusoidal wave where Re is variable, the flow speed will be correspondingly lower and require a more complicated analysis. Orig. art. has: 3 formulas and 3 figures.

ASSOCIATION: Institut goryuchikh iskopayemykh Moscow (Institute of Fossil Fuels)

SUBMITTED: 10Feb63 DATE ACQ: 27Aug63 ENCL: 00

SUB CODE: GP NO REF SOV: 001 OTHER: 005

Card 2/2

ACCESSION NR: AP4000413 S/0046/63/009/004/0490/0492

AUTHOR: Mednikov, Ye. P.

TITLE: Phenomenon of agglomeration of aerosol particles in a sound field

SOURCE: Akusticheskiy zhurnal, v. 9, no. 4, 1963, 490-492

TOPIC TAGS: geophysics, meteorology, sound field aerosol centering, sound field aerosol concentration, aerosol, aerosol concentration, aerosol condensation, aerosol flocculation, aerosol coagulation, sonic agglomeration

ABSTRACT: The behavior of an aerosol in a sound field around a small obstacle where flow hysteresis occurs, is discussed. The autoagglomerative action of particles with respect to the axis of the obstacle is emphasized. If the particle is infinitely small, it will behave almost like a particle of the surrounding medium and will exhibit a self-centering zig-zag motion with respect to the obstacle. A heavier particle also tends to drift toward the obstacle despite a certain lag. Because of this agglomerative action, the

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ACCESSION NR: AP4000413

probability of capturing moving aerosols by slower particles or stationary fibers is markedly higher in a sound field than in a stationary flow. These phenomena can be applied to problems of coagulation and filtration of aerosols in a sound field. Orig. art. has: 3 figures and 2 formulas.

ASSOCIATION: Institut goryuchikh iskopayemy*kh, Moscow (Institute of Mineral Fuels)

SUBMITTED: 10Feb63 DATE ACQ: 13Dec63 ENCL: 00

SUB CODE: AS, PH NO REF SOV: 002 OTHER: 001

Card 2/2

L 4944-66 EWT(1)/EWT(m)/EPF(c)/FCC/EPA(w)-2/T DS/WW/GW
ACC NR: AP5025764 SOURCE CODE: UR/0286/65/000/018/0151/0151

23
B

AUTHOR: Mednikov, Ye. P.
44,55

ORG: none

TITLE: A method for acoustic coagulation of aerosols. Class 12, No. 149399
12,44,55

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 151

TOPIC TAGS: aerosol, coagulation, aerosol precipitation

ABSTRACT: This Author Certificate presents a method for the acoustical coagulation of aerosols by passing the aerosol through coagulating chambers equipped with acoustic generators. To intensify the process, the frequency of the acoustic generators is decreased in each successive coagulation chamber and adjusted for maximum effectiveness corresponding to the particle size composition of the aerosol.

SUB CODE: GC/ SUBM DATE: 06Oct61

PC

Card 1/1

0901 1600

SIROTIN, A.M.; MEDNIKOV, Ye.P.

Experimental investigation of the dynamics of the low-temperature separation of natural gas. Gaz. delo no.6:17-20 '65. (MIRA 18:8)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina.

SIROTIN, A.M.; MEDNIKOV, Ye.P.

Experimental investigation of the dynamic process of the low temperature separation of natural gas in horizontal separators. Report no.3. Gaz. delo no.10:14-17 '65. (MIRA 18:12)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika Gubkina. Submitted February 19, 1965.

MIKHEYEV, V.P.; MEDNIKOV, Yu.P.; YUDASHKIN, A.G.

Varying performance of injector burners under subcritical conditions of gas outflow. Gaz. prom. 10 no.9:30-35 '65. (MIRA 18:11)

ACC NR: AP7000148 SOURCE CODE: UR/0046/66/012/004/0466/0473

AUTHOR: Mednikov, Ye. P.

ORG: Physicochemical Institute imeni L. Ya. Karpov, Moscow (Fiziko-khimicheskiy institut)

TITLE: Microstructure of acoustic turbulence

SOURCE: Akusticheskiy zhurnal, v. 12, no. 4, 1966, 466-473

TOPIC TAGS: turbulent flow, acoustic wave, Reynolds number, critical frequency

ABSTRACT: Using A. N. Kolmogorov's local isotropic turbulence theory, the local turbulence characteristics of fluids subjected to acoustic vibrations are analyzed. A critical acoustic Reynolds number is defined by

$$\mathrm{Re}^{\text{ак}} = \pi\sqrt{2}\,\frac{\rho c}{b}A;$$

where ρc is the acoustic impedance. The energy dissipation from acoustic turbulence is calculated to be

$$\varepsilon = 2\sqrt{2}\,(\gamma+1)\,\frac{u^3}{\lambda} = 2\sqrt{2}\,(\gamma+1)\,\frac{I_x^{3/2} f}{\rho^{3/2} c^{5/2}};$$

The value of ε is then calculated and tabulated for various values of ρ, c, b, γ,

Card 1/2

UDC: 534.222:532.507

ACC NR: AP7000148

u, I, and f in several different fluids, including air and water. A second table obtained lists various important local turbulence parameters such as Re(acoustic), ε, fluctuation frequency $\omega \sim u/\lambda$, as a function of noise intensity and frequency, in air and in water. Several conclusions are drawn from these results. For example: Re(acoustic) depends very strongly on the vibration frequency, the relative fluctuation velocity in a gas is much higher than in water, and the dissipation energy in acoustic turbulence depends on the overall state of the particular medium. Orig. art. has: 8 formulas and 2 tables.

SUB CODE: 20/ SUBM DATE: 16Apr65/ ORIG REF: 018/ OTH REF: 007

Card 2/2